UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/702,365	11/06/2003	Steven Michael Freedman	1322/158	8504

			EXAMINER
25297	7590	06/02/2005	YANG, LINA

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ART UNIT	PAPER NUMBER
2665	

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO 90C (Rev 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/702,365	FREEDMAN, STEVEN MICHAEL
	Examiner	Art Unit	
	Lina Yang	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>06 November 2003</u>.

2a)☐ This action is **FINAL**.　　2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-29</u> is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-29</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>11/06/2005</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All　b)☐ Some * c)☐ None of:

　　　1.☐ Certified copies of the priority documents have been received.

　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
　　Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1.   Claims 1-2, 4-29 are rejected under 35 U.S.C. 102(b) as being anticipated by

Nolting (U. S. Patent No. 6,282,267 B1).

Regarding claim 1, Nolting discloses a method for automated analysis of

signaling link utilization, the method comprising:

(a) copying signaling messages from a plurality of different signaling links and storing

the signaling messages in a signaling message database (fig. 7; col.12 lines 10-21; col.

15 lines 59-65);

(b) generating signaling link utilization data based on the data stored in the database

(fig. 7; col. 12 lines 10-21; col. 14 lines 24-27);

(c) displaying a signaling link utilization screen to a user, the signaling link utilization

screen including signaling link utilization data for a plurality of different signaling links

(fig. 7, col. 10-21 and col. 14 lines 20-23);

 (d) receiving input from the user via the link utilization screen regarding a portion of the

signaling link utilization data that the user desires to analyze (col. 15 lines 65-67 and

col. 16 lines 1-6);

(e) automatically extracting signaling message data corresponding to the selected

signaling link utilization data from the signaling message database(col. 15 lines 65-67

and col. 16 lines 1-6);   and

(f) displaying the signaling message data to the user via a computer display device

(col. 15 lines 65-67 and col. 16 lines 1-6).

Regarding claim 2, Nolting further discloses that copying signaling messages

includes copying SS7 signaling messages (col. 11 lines 50).

Regarding claim 4, Nolting further discloses that generating signaling link

utilization data includes generating data indicative of signaling messages that traverse

the signaling links in a predetermined time period (col. 14 lines 16-19).

Regarding claim 5, Nolting further discloses that displaying the signaling link

utilization data to a user includes displaying the signaling link utilization data to the user

in graphical format (fig. 3 and col. 5 lines 50-51).

Regarding claim 6, Nolting further discloses that displaying the signaling link

utilization data to the user includes displaying the signaling link utilization data to the

user in tabular format (fig. 4 and col. 5 lines 50-51).

Regarding claim 7, Nolting further discloses that receiving input from the user

regarding a portion of the link utilization data that the user desires to analyze includes

receiving coordinates on a signaling link utilization graph selected by the user and

determining signaling link utilization data corresponding to the selected coordinates

("interactive" and "on the fly"; col. 15 lines 65-67 and col. 16 lines 1-6; col. 14 lines 24-

27).

Regarding claim 8, Nolting further discloses that automatically extracting the

signaling message data includes automatically launching a protocol analysis

application from the signaling link utilization screen in response to the input from the

user ("analytical software"; col. 15, lines 65-67 and col. 16 lines 1-6).

Regarding claim 9, Nolting further discloses that displaying the signaling

message data to the user via a computer display device includes displaying copies of

signaling messages corresponding to the link utilization data to the user (the data

stored in 220 in fig.7 are copies).

Regarding claim 10, Nolting further discloses that displaying the signaling

message data to the user via a computer display device includes displaying

predetermined fields from signaling message data corresponding to the selected link

utilization data to the user ("call detailed records" has many fields, col. 14 lines 24-27;

col. 15, lines 65-67 and col. 16 lines 1-6).

Regarding claim 11, Nolting further discloses that the selected link utilization data and the corresponding signaling message data consist of data for a single signaling link (fig. 1 for switch 112 in only; col. 14 lines 24-32).

Regarding claim 12, Nolting discloses a system for automated analysis of signaling link utilization, the system comprising: (a) a message copy function for copying signaling messages from a plurality of different signaling links (fig. 7; col.12 lines 10-21; col. 15 lines 59-65); (b) a link utilization application operatively associated with the message copy function for generating link utilization data based on the copied signaling messages and for displaying the link utilization data to the user via a link utilization screen (fig. 7; col. 12 lines 10-21; col. 14 lines 20-27);   and (c) an automated link utilization analyzer operatively associated with the link utilization application for receiving input from the user via the link utilization screen regarding link utilization data desired to be analyzed and for, in response to the input from the user, automatically extracting corresponding signaling message information from a database and displaying the extracted signaling message information to the user (col. 15 lines 65-67 and col. 16 lines 1-6).

Regarding claim 13, Nolting further discloses that the message copy function is internal to a signaling message routing node (internal to "site server"; col. 12 lines 17-19).

Regarding claim 14, Nolting further discloses that the message copy function is located on a stand-alone network monitoring platform ("site server"; col. 12 lines 17-19).

Regarding claim 15, Nolting further discloses that the link utilization application is adapted to count the number of signaling messages traversing each of the signaling links in a predetermined time period (for example, col. 13 lines 24-33; lines 50-53 and col. 14 lines 28-32).

Regarding claim 16, Nolting further discloses that the link utilization application is adapted to display the signaling link utilization data to the user in graphical format (fig. 3 and col. 5 lines 50-51).

Regarding claim 17, Nolting further discloses that the link utilization application is adapted to display the link utilization data to the user in tabular format(fig. 3 and col. 5 lines 50-51).

Regarding claim 18, Nolting further discloses that the automated link utilization analyzer is adapted to extract signaling message copies from the database and display the signaling message copies to the user (col. 14 lines 16-27) .

Regarding claim 19, Nolting further discloses that the automated link utilization analyzer is adapted to display selected fields from copied signaling messages to the user (col. 14 lines 24-27).

Regarding claim 20, Nolting further discloses that the automated signaling link analyzer is adapted to automatically launch, from the link utilization screen, a protocol analysis application for extracting the signaling message information ("analytical software"; col. 15, lines 65-67 and col. 16 lines 1-6).

Regarding claim 21, Nolting further discloses that the selected link utilization data and the corresponding signaling message data consist of data regarding a single signaling link (fig. 1 for switch 112 in only; col. 14 lines 24-32).

Regarding claim 22, Nolting further discloses a computer program product for automated analysis of signaling link utilization, the computer program product comprising computer-executable instructions embodied in a computer-readable medium for performing steps comprising: (a) displaying signaling link utilization data regarding utilization of a plurality of different signaling links to a user via a link utilization screen (fig. 7, col. 10-21 and col. 14 lines 20-23); (b) receiving input from the user via the link utilization screen regarding a portion of the signaling utilization data that the user desires to analyze (col. 15 lines 65-67 and col. 16 lines 1-6); (c)automatically extracting signaling message data corresponding to the selected

signaling link utilization data from a signaling message database (col. 15 lines 65-67

and col. 16 lines 1-6);   and (d) displaying the extracted signaling message data to the

user via a computer display device (col. 15 lines 65-67 and col. 16 lines 1-6).

Regarding claim 23, Nolting further discloses that displaying signaling link

utilization data includes displaying data indicative of signaling messages that traverse

the signaling link in a predetermined time period (col. 14 lines 16-19).

Regarding claim 24, Nolting further discloses that displaying the signaling link

utilization data to a user includes displaying the signaling link utilization data to the user

in graphical format (fig. 3 and col. 5 lines 50-51).

Regarding claim 25, Nolting further discloses that displaying the signaling link

utilization data to the user includes displaying the signaling link utilization data to the

user in tabular format (fig. 4 and col. 5 lines 50-51).

Regarding claim 26, Nolting further discloses that receiving input from the user

regarding a portion of the link utilization data that the user desires to analyze includes

receiving a point on a signaling link utilization graph selected by the user and

determining signaling link utilization data closest to the point (inherent from "interactive

reports" and "on the fly analysis", col. 15 lines 65-67 and col. 16 line 1).

Regarding claim 27, Nolting further discloses that automatically extracting the signaling message data includes automatically launching a protocol analysis application from the signaling link utilization screen in response to receiving the input from the user ("analytical software"; col. 15, lines 65-67 and col. 16 lines 1-6).

Regarding claim 28, Nolting further discloses that displaying the signaling message data to the user via computer display device includes displaying copies of signaling messages corresponding to the link utilization data to the user (the data stored in 220 in fig.7 are copies).

Regarding claim 29, Nolting further discloses that displaying the signaling message data to the user via the computer display device includes displaying selected fields from the signaling message data to the user ("call detailed records" has many fields, col. 14 lines 24-27; col. 15, lines 65-67 and col. 16 lines 1-6).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2.   Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over by Nolting

(U. S. Patent No. 6,282,267 B1) in view of Spangler et al. (U. S. Patent No. 6,327,350

B1).

Regarding claim 3, Nolting differs from the claimed invention in that Nolting does

not specifically disclose that the copying signaling messages includes copying IP

telephony signaling messages. However, Spangler discloses the copying signaling

messages includes copying IP telephony signaling messages (col. 3 lines 51-54).

Therefore, it would have been obvious for one of ordinary skill in the art at the time

when the invention was made to include a network interface for copying IP telephony

signaling messages as taught by Spangler et al. in the assembly of Nolting in order to

accommodate different signaling protocols.

Conclusion

3.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Swanson (U. S. Patent No. 5,867,558) discloses a method for remote collection

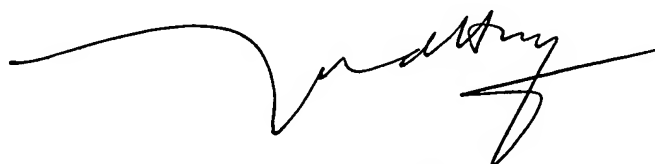of signaling messages for routing analysis and trouble detection.

Pester III (U. S. Patent No. 5,867,558) discloses a system for common

channeling signaling network maintenance and testing.

4.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Lina Yang whose telephone number is (571)272-3151.

The examiner can normally be reached on 7:30am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Huy Vu can be reached on (571)272-3155. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

LY

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